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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/695,077      10/25/2000      PHILIP NEIL GARNER      1263.1881      1606

5514      7590      03/05/2003

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EXAMINER

SMITS, TALIVALDIS IVARS

ART UNIT      PAPER NUMBER

2654

DATE MAILED: 03/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/695,077

Applicant(s)  
Philip Neil Garner et al.

Examiner  
Talivaldis Ivars Smits

Art Unit  
2654



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-100 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-100 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 25, 2000 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3, 4, 8
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The Title of the invention is not sufficiently descriptive. A new Title is required that is more clearly indicative of the novelty in the invention to which the claims are directed.
2. The disclosure is objected to because it lacks Section headings, such as: Related Applications, Field of the Invention, Background of the Invention, Brief Summary of the Invention, Brief Description of the Drawings, and Detailed Description of the Invention.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-100 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947).

The term "similarity data" in the claims for "decoded features" seems to be used (at least in claims 17 and 64) to mean "probability of correct and false classification" for various actual vs pattern recognizer decision hypothesis pairs, and the associated "feature" seems to really be a "recognition hypothesis" (a "decoding" of the category, *e.g.*, identity of an input phoneme or typed character). However, the standard meaning of "similarity" in pattern recognition is a numerical value indicating how geometrically close a given feature vector of measurements is to another (*e.g.*, a reference template vector) according to some "distance" metric. The term "feature" itself (being a component of a "feature vector") usually refers to a scalar parameter which has been extracted by processing the input signal by a pattern recognizer, and does not *per se* imply that any classification in terms of a statistical hypothesis class has yet been made. The latter, standard usage, "features", of course, are, by definition, "representative of said input signal", so that no specific recitation thereof is needed (*cf. e.g.* claims 1 and 49).

The term "confidence data", on the other hand, is confusingly used in connection with aligned pairs of "features" in a sequence (or are "predetermined features" aligned with the input sequence independently of one another?), which "features" terminology now seems to conform to standard usage, their "confidence data" now seemingly referring to their "similarity" or "distance" in the art-standard sense.

Then things get further confused when the originally distinct concepts "confidence" and "similarity" are blurred together by reciting "using said confidence data, to provide a measure of the similarity between the input sequence of features and the stored sequence of features" (*e.g.*, in claims 1 and 49). Clarification, please!

6. Thus, the examiner cannot apply the prior art to the current multitude of confusingly vague and indefinite claims, and requests that the claims be rewritten so as to have unambiguous terminology which makes it clear:

- when recognition decisions are designated by “features”, and when actual measured numerical feature(s) are intended, and
- when two (or more) sequences are paired and compared element by element, and when individual features in an input sequence are independently identified (“decoded”), one by one, using individual reference features independently of one another (is this what “predetermined features” is alluding to?), thus without regard for the latter being ordered in any relevant sequence.

### ***Conclusion***

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or FAXed to:**

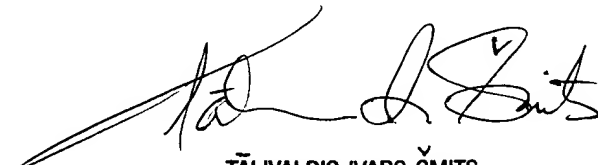
(703) 872-9314 (please label *formal* communications  
“OFFICIAL”; please label *informal* or draft communications,  
“PROPOSED” or “DRAFT”)

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Talivaldis Ivars Smits, whose telephone number is (703) 306-3011. The examiner can normally be reached Mondays-Fridays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold, can be reached on (703) 305-4379. The facsimile phone number for Technology Center 2600 is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 customer service, whose telephone number is (703) 306-0377.



TĀLIVALDIS IVARS ŠMITS  
PRIMARY EXAMINER

Art Unit 2654  
March 4, 2003